

1 Abstract

2 A superconducting material useful for forming electrolytic devices is made by
3 establishing multiple niobium or tantalum components in a primary billet of a ductile material;
4 working the primary billet through a series of reduction steps to form the niobium or tantalum
5 components into elongated elements; cutting and restacking the resulting elongated elements
6 with a porous confining layer to form a secondary billet, working the secondary billet through a
7 series of reduction steps including twisting and final rolling to thin ribbon cross-sections with
8 greater than 5:1 Aspect Ratios; cutting the resulting elongated billet into sections; and leaching
9 the core and sheath at least in part.